

IN THE CLAIMS

Please cancel claims 2, 7, 12, 17-18, 20, 24, 28, 32-33, 35-37 and 42-45.

Please amend the claims as follows.

- 1 1. (Currently Amended) An apparatus comprising:
 - 2 (A) at least one processor;
 - 3 (B) a memory coupled to the at least one processor;
 - 4 (C) first and second logical partitions defined on the apparatus, the first logical
5 partition controlling a shared network I/O adapter and the second logical partition using
6 the shared network I/O adapter controlled by the first logical partition;
 - 7 (D) an I/O adapter sharing mechanism residing in the memory and executed by the
8 at least one processor, the I/O adapter sharing mechanism comprising:
 - 9 (D1) an I/O adapter device driver in the first logical partition, the I/O
10 adapter device driver including a hardware interface to the shared network I/O
11 adapter;
 - 12 (D2) a virtual device driver in the second logical partition, wherein the
13 virtual device driver provides a set of functions at least partially determined by
14 ~~functions available in~~ querying the I/O adapter device driver in the first logical
15 ~~partition for its available functions;~~ and
 - 16 (E) a communication mechanism that controls exchange of information between
17 the virtual device driver and the I/O adapter device driver.
- 1 2. (Cancelled)
- 1 3. (Original) The apparatus of claim 1 further comprising a transfer mechanism that
2 transfers data between the virtual device driver and the shared network I/O adapter
3 without the data passing through the I/O adapter device driver.

1 4. (Original) The apparatus of claim 1 wherein the communication mechanism comprises
2 a partition manager that communicates between the first and second logical partitions.

1 5. (Original) The apparatus of claim 4 wherein the communication mechanism further
2 comprises a hosting interface in the first logical partition that communicates between the
3 I/O adapter device driver and the partition manager, wherein the partition manager
4 communicates between the hosting interface in the first logical partition and the virtual
5 device driver in the second logical partition.

1 6. (Currently Amended) An apparatus comprising:
2 (A) at least one processor;
3 (B) a memory coupled to the at least one processor;
4 (C) first and second logical partitions defined on the apparatus, the first logical
5 partition controlling a shared network I/O adapter and the second logical partition using
6 the shared network I/O adapter controlled by the first logical partition;
7 (C1) the first logical partition comprising:
8 an I/O adapter device driver that includes a hardware interface to
9 the shared network I/O adapter;
10 (C2) the second logical partition comprising:
11 a virtual device driver that receives data to be sent to the shared
12 network I/O adapter and data received from the shared network I/O
13 adapter, wherein the virtual device driver provides a set of functions at
14 least partially determined by ~~functions available in~~ querying the I/O
15 adapter device driver in the first logical partition for its available
16 functions; and
17 (D) a communication mechanism coupled to the first and second logical partitions
18 that communicates between the virtual device driver and the I/O adapter device driver.

1 7. (Cancelled)

1 8. (Original) The apparatus of claim 6 further comprising a transfer mechanism that
2 transfers data between the virtual device driver and the shared network I/O adapter
3 without the data passing through the I/O adapter device driver.

1 9. (Original) The apparatus of claim 6 wherein the communication mechanism comprises
2 a partition manager that communicates between the first and second logical partitions.

1 10. (Original) The apparatus of claim 9 wherein the communication mechanism further
2 comprises a hosting interface in the first logical partition that communicates between the
3 I/O adapter device driver and the partition manager, wherein the partition manager
4 communicates between the hosting interface in the first logical partition and the virtual
5 device driver in the second logical partition.

1 11. (Currently Amended) An apparatus comprising:
2 at least one processor;
3 a memory coupled to the at least one processor;
4 first and second logical partitions defined on the apparatus, the first logical
5 partition controlling a shared network I/O adapter and the second logical partition using
6 the shared network I/O adapter controlled by the first logical partition;
7 an I/O adapter device driver in the first logical partition, the I/O adapter device
8 driver including a hardware interface to the shared network I/O adapter;
9 a virtual device driver in the second logical partition, the virtual device driver
10 providing a set of functions at least partially determined from ~~functions available in~~
11 querying the I/O adapter device driver in the first logical partition for its available
12 functions; and
13 a communication mechanism that communicates between the virtual device driver
14 in the second logical partition and the I/O adapter device driver in the first logical
15 partition.

1 12. (Cancelled)

1 13. (Original) The apparatus of claim 11 further comprising a transfer mechanism that
2 transfers data between the virtual device driver and the shared network I/O adapter
3 without the data passing through the I/O adapter device driver.

1 14. (Original) The apparatus of claim 11 wherein the communication mechanism
2 comprises a partition manager that communicates between the first and second logical
3 partitions.

1 15. (Original) The apparatus of claim 14 wherein the communication mechanism further
2 comprises a hosting interface in the first logical partition that communicates between the
3 I/O adapter device driver and the partition manager, wherein the partition manager
4 communicates between the hosting interface in the first logical partition and the virtual
5 device driver in the second logical partition.

1 16. (Currently Amended) An apparatus comprising:
2 at least one processor;
3 a memory coupled to the at least one processor;
4 first and second logical partitions defined on the apparatus, the first logical
5 partition controlling a shared network I/O adapter and the second logical partition using
6 the shared network I/O adapter controlled by the first logical partition; and
7 a partition manager residing in the memory and executed by the at least one
8 processor, the partition manager performing the steps of:
9 (1) querying an I/O adapter device driver in the first logical partition for its
10 available functions;
11 (2) providing a virtual device driver in the second logical partition with a
12 set of functions at least partially determined from the available functions
13 determined in step (1);
14 [(1)] (3) receiving at least one transmit message from [[a]] the virtual
15 device driver in the second logical partition;
16 [(2)] (4) sending at least one transmit message to [[an]] the I/O adapter
17 device driver in the first logical partition that includes a hardware interface to the
18 shared network I/O adapter; and
19 [(3)] (5) transferring data from the virtual device driver in the second
20 logical partition to the shared network I/O adapter without the data passing
21 through the I/O adapter device driver in the first logical partition.

1 17-18. (Cancelled)

1 19. (Currently Amended) A computer-implemented method for sharing a shared network
2 I/O adapter between first and second logical partitions on a computer apparatus, the
3 method comprising the steps of:

4 (A) providing an I/O adapter device driver in the first logical partition, the I/O
5 adapter device driver including a hardware interface to the shared network I/O adapter;

6 (B) determining a plurality of functions provided by the shared network I/O
7 adapter by querying the I/O adapter device driver for its available functions;

8 (C) providing a virtual device driver in the second logical partition, the virtual
9 device driver providing a set of functions at least partially determined by the plurality of
10 functions determined in step (B); and

11 (D) controlling exchange of information between the virtual device driver and the
12 I/O adapter device driver.

1 20. (Cancelled)

1 21. (Original) The method of claim 19 further comprising the step of transferring data
2 between the virtual device driver and the shared network I/O adapter without the data
3 passing through the I/O adapter device driver.

1 22. (Original) The method of claim 19 wherein step (D) is performed by a partition
2 manager that communicates between the first and second logical partitions.

1 23. (Currently Amended) A computer-implemented method for sharing a shared network
2 I/O adapter between first and second logical partitions on a computer apparatus, the
3 method comprising the steps of:
4 (A) defining the first and second logical partitions, the first logical partition
5 controlling the shared network I/O adapter and the second logical partition using the
6 shared network I/O adapter controlled by the first logical partition, the first logical
7 partition comprising an I/O adapter device driver that includes a hardware interface to the
8 shared network I/O adapter, the second logical partition comprising a virtual device driver
9 that receives data to be sent to the shared network I/O adapter and data received from the
10 shared network I/O adapter;
11 (B) determining a plurality of functions provided by the shared network I/O
12 adapter by querying the I/O adapter device driver for its available functions;
13 (C) providing a set of functions for the virtual device driver that is at least
14 partially determined by the plurality of functions determined in step (B); and
15 (D) communicating between the virtual device driver and the I/O adapter device
16 driver.

1 24. (Cancelled)

1 25. (Original) The method of claim 23 further comprising the step of transferring data
2 between the virtual device driver and the network I/O adapter without the data passing
3 through the I/O adapter device driver.

1 26. (Original) The method of claim 23 wherein step (D) is performed by a partition
2 manager that communicates between the first and second logical partitions.

1 27. (Currently Amended) A computer-implemented method for sharing a shared network
2 I/O adapter between first and second logical partitions on a computer apparatus, the
3 method comprising the steps of:

4 (A) defining the first and second logical partitions on the apparatus, the first
5 logical partition controlling the shared network I/O adapter and the second logical
6 partition using the shared network I/O adapter controlled by the first logical partition;

7 (B) providing an I/O adapter device driver in the first logical partition, the I/O
8 adapter device driver including a hardware interface to the shared network I/O adapter;

9 (C) providing a virtual device driver in the second logical partition, the virtual
10 device driver providing a set of functions at least partially determined from ~~functions~~
11 ~~available in querying~~ the I/O adapter device driver in the first logical partition for its
12 available functions; and

13 (D) communicating between the virtual device driver in the second logical
14 partition and the I/O adapter device driver in the first logical partition.

1 28. (Cancelled)

1 29. (Original) The method of claim 27 further comprising the step of transferring data
2 between the virtual device driver and the shared network I/O adapter without the data
3 passing through the I/O adapter device driver.

1 30. (Original) The method of claim 27 wherein step (D) is performed by a partition
2 manager that communicates between the first and second logical partitions.

1 31. (Currently Amended) A computer-implemented method for sharing a shared network
2 I/O adapter between first and second logical partitions on a computer apparatus, the
3 method comprising the steps of:

4 (A) defining the first and second logical partitions on the apparatus, the first
5 logical partition controlling a shared network I/O adapter and the second logical partition
6 using the shared network I/O adapter controlled by the first logical partition;

7 (B) providing a partition manager that performs the steps of:

8 (B1) querying an I/O adapter device driver in the first logical partition for
9 its available functions;

10 (B2) providing a virtual device driver in the second logical partition with a
11 set of functions at least partially determined from the available functions
12 determined in step (B1);

13 [[B1]] (B3) receiving at least one transmit message from [[a]] the virtual
14 device driver in the second logical partition;

15 [[B2]] (B4) sending at least one transmit message to [[an]] the I/O
16 adapter device driver in the first logical partition that includes a hardware
17 interface to the shared network I/O adapter; and

18 [[B3]] (B5) transferring data from the virtual device driver in the second
19 logical partition to the shared network I/O adapter without the data passing
20 through the I/O adapter device driver in the first logical partition.

1 32-33. (Cancelled)

1 34. (Currently Amended) A computer-readable program product comprising:
2 (A) an I/O adapter sharing mechanism comprising:
3 (A1) an I/O adapter device driver for installation in a first logical partition,
4 the I/O adapter device driver including a hardware interface to a shared network
5 I/O adapter;
6 (A2) a virtual device driver for installation in a second logical partition,
7 the virtual device driver providing a set of functions at least partially determined
8 by ~~functions available in querying~~ the I/O adapter device driver for its available
9 functions; and
10 (A3) a communication mechanism that controls exchange of information
11 between the virtual device driver and the I/O adapter device driver;
12 (B) ~~computer readable signal bearing~~ recordable media bearing the I/O adapter
13 sharing mechanism.

1 35-37 (Cancelled)

1 38. (Original) The program product of claim 34 wherein the I/O adapter sharing
2 mechanism further comprises a transfer mechanism that transfers data between the virtual
3 device driver and the shared network I/O adapter without the data passing through the I/O
4 adapter device driver.

1 39. (Original) The program product of claim 34 wherein the communication mechanism
2 comprises a partition manager that communicates between the first and second logical
3 partitions.

40. (Original) The program product of claim 39 wherein the communication mechanism further comprises a hosting interface in the first logical partition that communicates between the I/O adapter device driver and the partition manager, wherein the partition manager communicates between the hosting interface in the first logical partition and the virtual device driver in the second logical partition.

41. (Currently Amended) A computer-readable program product comprising:

(A) a partition manager that performs the steps of:

(1) querying an I/O adapter device driver in a first logical partition for its available functions;

(2) providing a virtual device driver in a second logical partition with a set of functions at least partially determined from the available functions determined in step (1);

[(1)] (3) receiving at least one transmit message from [[a]] the virtual device driver in [[a]] the second logical partition;

[(2)] (4) sending at least one transmit message to [[an]] the I/O adapter device driver in [[a]] the first logical partition that includes a hardware interface to a shared network I/O adapter; and

[(3)] (5) transferring data from the virtual device driver in the second logical partition to the shared network I/O adapter without the data passing through the I/O adapter device driver in the first logical partition; and

(B) computer readable signal bearing recordable media bearing the partition manager.

42-45 (Cancelled)